

LANDOWNERS FOR WILDLIFE



Wildlife & Forest Management in the Gulf Coastal Plain Eco-Region

By David Hayden, Wildlife Biologist



Photo by David Hayden, LDWF

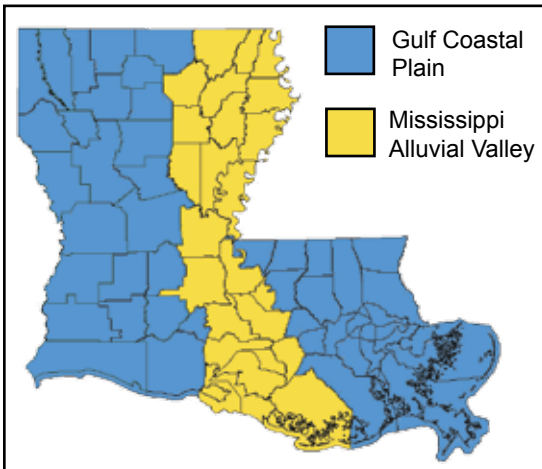


Photo courtesy of Tri-Parish Hunting Club

The first thing one must do when practicing forest management in the Gulf Coastal Plain Eco-Region is take an inventory of the property being managed. Factors such as the timber age, property size, species diversity, soil type, estimated composition of surrounding properties, approximate animal populations, habitat structure (both horizontal and vertical), openings (rights-of-way, existing fields, logging decks, trails, fire breaks), water (beaver ponds, creeks, rivers), unique areas (bogs, caves, outcroppings, home sites), and dead wood (snags, logs, brush piles) should be recorded so land managers have notes to compare when examining habitat treatments.

The next thing that land managers should do is develop goals for the property. These goals should be specific, measurable, attainable, reasonable and timed so that results can be monitored, evaluated and modified. Management techniques should be applied so that the property supplies a reasonable diversity of habitat types and ages. Land managers should consider timber revenue versus improving wildlife habitat, consumptive versus non-consumptive use, game species

management versus non-game species management, as well as a variety of other factors. Primary wildlife species of interest and methods used to provide food, cover, water and space for these animals should be noted. These factors will also depend on whether the property is owned by the land managers or leased, and whether the lease is short term or long term.



As a tract of timber matures, there are a variety of techniques that can be utilized to benefit timber and wildlife production. A stand can be allowed to naturally regenerate or it can be artificially regenerated (planted). Naturally regenerated stands have seeds that are better adapted to a site, more visual appeal, less soil disturbance, and less establishment costs than planted stands. However, artificially regenerated stands can be planted with genetically improved seedlings and provide higher stumpage value.

ARTIFICIAL STAND REGENERATION

If land managers decide to artificially regenerate a stand, site preparation techniques can be employed prior to planting.

MECHANICAL

Mechanical site preparation methods such as root raking, roller drum chopping, disking and bedding can improve stand establishment; however, they involve more initial cost to the land owner. Other mechanical site preparation techniques such as slash piles or wind rows provide concealment for both wildlife species and hunters; however, they are also an added cost and take up space that could be planted in trees. As slash piles and wind rows decompose and vegetation such as vines begin to grow, these areas can be fertilized by themselves or with the entire stand to provide additional browse.

CHEMICAL

Chemical site preparation is an expensive treatment that can be used to target unwanted woody vegetation. However, chemical site preparation eliminates browse and residual effects of this treatment can be seen for a few years.

PRESCRIBED BURNING

If the site has sufficient woody debris and small trees, prescribed fire can be used as a site preparation method. This tactic produces a clean site for planting and returns nutrients to the ground.

STAND IMPROVEMENTS

PRESCRIBED BURNING

As a stand matures, various practices can be employed to improve its timber value and provide additional wildlife food and cover. The staple for stand improvement in the Gulf Coastal Plain is prescribed fire. This technique sets back succession by removing small trees while increasing herbaceous and woody growth, nutrition, and palatability, which are beneficial to numerous wildlife species. Prescribed fire also increases insect production and removes heavy duff layers, which are especially beneficial to ground nesting birds such as the northern bobwhite quail and the eastern wild turkey. Fire can be used during late winter, called a cool or dormant season burn, or spring and early summer, called a warm or growing season burn. Cool season burns do not destroy nests of ground nesting birds, increase plant production the following growing season (especially legumes and hardwood sprouts), and leave patches of unburned vegetation called cover islands. If a stand has been burned previously and requires removal of small hardwoods in the midstory, the following burn can be a warm season burn. This burn typically occurs around May when hardwood sprouts have greatly depleted their nutrient storage growing leaves and shoots. Burning every two to three years is beneficial to species such as quail and turkey, while burning on a three to five year rotation is more beneficial to white-tailed deer.



Photo by David Hayden, LDWF



Stand just after prescribed fire in March.



Same stand approximately eight months after proscribed burn (in November).

Photos by Jimmy Stafford, LDWF

TIMBER HARVEST

Timber harvests are another way to improve wildlife habitat. Thinnings increase the amount of sunlight reaching the ground which, in turn, increases plant growth. Stands can be marked and thinned or row thinned based on the desired result and the species, size and age of trees present in the stand. Thinnings can be preceded or followed by a prescribed burn for additional benefits to wildlife.

Final timber harvests definitely affect wildlife habitat. Individual tree selection and group selection are commonly used techniques designed to remove mature trees from a stand so that light can reach the forest floor and provide some income for the landowner. This technique also creates an unevenly aged forest which benefits many species of songbirds. Care should be taken so that the harvest does not high grade a stand (remove only the most financially valuable timber). All types of species and quantities of trees should be removed from a tract, instead of removing one species completely. For example, trees such as blackgum and American beech are often completely removed; however, they are very important winter foods for turkey and other birds.

Clearcuts, seed tree cuts and shelterwood cuts are harvests where larger forest blocks are cut and regenerated in a variety of ways. When possible, these final harvests should be long, linear, 40 acres or less in size, evenly distributed across the landscape, and have an uneven edge. They should also be narrow enough that wildlife can easily access the entire cut, but wide enough that predators cannot easily attack from the forest edge. Snags should be left since they are an excellent source of cavities on any tract of land. Streamside management zones should be established to prevent silt from filling streams and to provide travel corridors for wildlife. These zones should be wide enough so that they are able to be managed as a separate forest unit.

FOREST OPENINGS

Forest openings can easily be managed to benefit wildlife and provide easier access for hunters. Many hunters plant agricultural crops, such as wheat or oats, or soft mast trees, such as persimmon or plum, in openings. However, there are a variety of methods that encourage the growth of native vegetation. Mowing is an inexpensive way to set back succession while also encouraging woody sprouts. This practice should be done after July 1 when most ground nesting birds have completed nesting. Disking can be performed in the fall to promote heavy-seeded winter plants and also create nesting and brooding habitat for the following spring. Both mowing and disking should be done on a two to three year rotation whereby only a portion of the opening is treated each year. When necessary, selective herbicides can be applied to an opening to control unwanted herbaceous and woody vegetation.

WATER BODIES

Cypress brakes, sloughs, beaver ponds, shallow water areas and other bodies of water can also be managed. Water control structures can be installed to manage water depths so proper habitat conditions are available for shorebirds, wading birds and waterfowl throughout the year. Also, wood duck nesting boxes can be placed near bodies of water to provide additional cavities.



PRIVATE LANDS PROGRAM

The Louisiana Department of Wildlife and Fisheries private lands biologists will assist landowners with implementing techniques discussed in this brochure as well as other programs such as nighttime beaver or hog permits. Furthermore, they will work with personnel from the Louisiana Department of Agriculture and Forestry, LSU Extension Service, U.S. Fish and Wildlife Service, Natural Resource Conservation Service, private consultants, and others to create a complete land management plan. When applicable, they will also help the landowner acquire cost share assistance through programs such as The Partners Program, Wetland Reserve Program, Conservation Reserve Program, Wildlife Habitat Incentive Program, Environmental Quality Incentive Program, State Acres for Wildlife Program, Conservation Reserve Enhancement Program, Forest Landowner Enhancement Program, Forest Productivity Program, and others. Please contact your local LDWF office and ask to speak to the private lands biologist responsible for the parish in which your property is located.



Photo by David Hayden, LDWF



Photos by John Robinette, LDWF



A small creek has made its way through a mature pine forest giving diversity to an otherwise pine dominated GCP forest in Jackson Parish.



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www.wlf.louisiana.gov or
contact a local LDWF office

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